

Date: Tuesday, 7/1/2008 2:34:04 PM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : TUBE ASSEMBLY
Job Number : 40188	
Estimate Number : 11198	
P.O. Number :	Part Number : D3304041
This Issue : 7/1/2008 S.O. No. :	Drawing Number : D3304 REV. B
Prsht.Rev. : NC	Project Number : N/A
First Issue : 1/1 Type : MACHINED PARTS	Drawing Revision : B
Previous Run : 35438	Material :
Written By :	Due Date : 7/28/2008 Qty: 4 Um: Each
Checked & Approved By : <u>08.07.01</u>	
Comment : Est: C 04.11.17 Step 13 revised KJ/JLM	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	M304TR0875W065	SS TUBING
-----	----------------	-----------



Comment: Qty.: 1.4109 f(s)/Unit Total: 5.6435 f(s)
 Material: AISI 304/316 SS tubing 0.875" x 0.065" wall
 (M304TR0.875W.065)
 Identify for D3304-1
 Batch: ~~M10258~~ M16258 x2

M103090 x2

J.F. 08/07/18

(4)

2.0	HARDINGE	HARDINGE CNC LATHE SMALL
-----	----------	--------------------------



Comment: HARDINGE CNC LATHE SMALL
 Cut blank: 15.75" as per Dwg D3304
 Turn as per Folio FA458 and Dwg D3304
 Identify as D3304-1

J.F. 08/07/18

(4)

3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

J.F. 08/07/18

(4)

4.0	QC8	SECOND CHECK
-----	-----	--------------



Comment: SECOND CHECK

J.F. 08/07/18

(4)

5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
-----	-------------	-------------------------------



Comment: SMALL & MEDIUM FAB RESOURCE 1
 Deburr
 Drill as per Dwg D3304 using drill Jig D3304-T1
 Deburr

FF 08-07-28

(4)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Part Number: D3304041

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

5 08/07/08 (x4)

7.0

D33045

Bracket



Comment: Qty.: 1.0000 Each(s)/Unit Total: 4.0000 Each(s)

Bracket

Pick:

Qty Part Number Description Batch

1 D3304-5 Bracket

Batch

335481

✓

3 B40203

*

08-07-31

8.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Weld bracket as per Dwg D3304 and QSI 004

08-07-31

x4

9.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

PD 08-08-01 08-07-31 (x4)

10.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

Soedwolo (x4) 5 08/07/31 (x4)

11.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

1:50
320 OF
2:20

m. 08/08/05

12.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

08-08-05 (x4)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3304-041 PAR #: N/A Fault Category: Prod/FAB' Large NCR: (Yes) No DQA: [Signature] Date: 201009/08
D412-724-041 QA: N/C Closed: [Signature] Date: 021009/08

NCR: <u>40188</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>8/17/01</u>	<u>80</u>	<u>During welding inspection it was noticed that the Bracket D3304-5 was welded upside down according to the Dwg. and RC. welder did not see hole position on Dwg.</u>	<u>[Signature]</u>	<u>Parts acceptable, was</u> <u>Drill hole @ the bottom as per drawing.</u> <u>Qty 2 affected.</u>	<u>[Signature]</u> <u>08/08/01</u>	<u>S</u> <u>08/08/01</u>	<u>[Signature]</u> <u>08/08/01</u>	<u>S</u> <u>08/08/01</u>

NOTE: Date & initial all entries

Date: Tuesday, 7/1/2008 2:34:04 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TUBE ASSEMBLY

Job Number: 40188

Part Number: D3304041

Job Number:



Seq. #:

Machine Or Operation:

Description :

13.0

BLBS0016

PIP PIN



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

PIP PIN

Pick:

Qty	Part Number	Description	Batch
1	BLBS-0016	Pip Pin	103178

14.0

CBL460

Loop Sleeve



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Loop Sleeve

Pick:

Qty	Part Number	Description	Batch
2	CBL-460	Loop Sleeve	107234

15.0

CBL1240

Cable



Comment: Qty.: 1.0417 f(s)/Unit Total : 4.1668 f(s)

Cable

Pick:

Qty	Part Number	Description	Batch
12.5"	CBL-1240	Cable	1167234

16.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble lanyard and pip pin as per Dwg D3304

17.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

18.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify with P/N and B/N as per Dwg using a permanent fine point marker, then Stock

Location: CAF ST

CAF 08-08-07

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3304-041 PAR # N/A Fault Category: Prod/Process ^{mod & small} NCR: Yes No DQA: P Date: 08/08/08
 QA: N/C Closed: P Date: 08/08/08

NCR: <u>40188</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>8/6/7</u>	<u>16</u>	During final inspection ② brackets came apart A part with little ease R.C. CBL-460 was not crimped enough.	<u>08.08.07</u>	Scrap and Destroy and Replace Qty CBL-460 B4 <u>M107234</u> Qty CBL-1240 B4 <u>M107234</u>	<u>SAD</u> <u>08/08/07</u>	<u>S</u> <u>08/08/07</u>	<u>08.08.07</u>	<u>8/6/7</u>
				AND Recrimp correctly				<u>8/6/7</u>

NOTE: Date & initial all entries

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Drawing Name: TUBE ASSEMBLY

Job Number: 40188

Part Number: D3304041

Job Number:



Seq. #:

Machine Or Operation:

Description :

19.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

D 08/08/08

Job Completion



MF 08-08-07

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

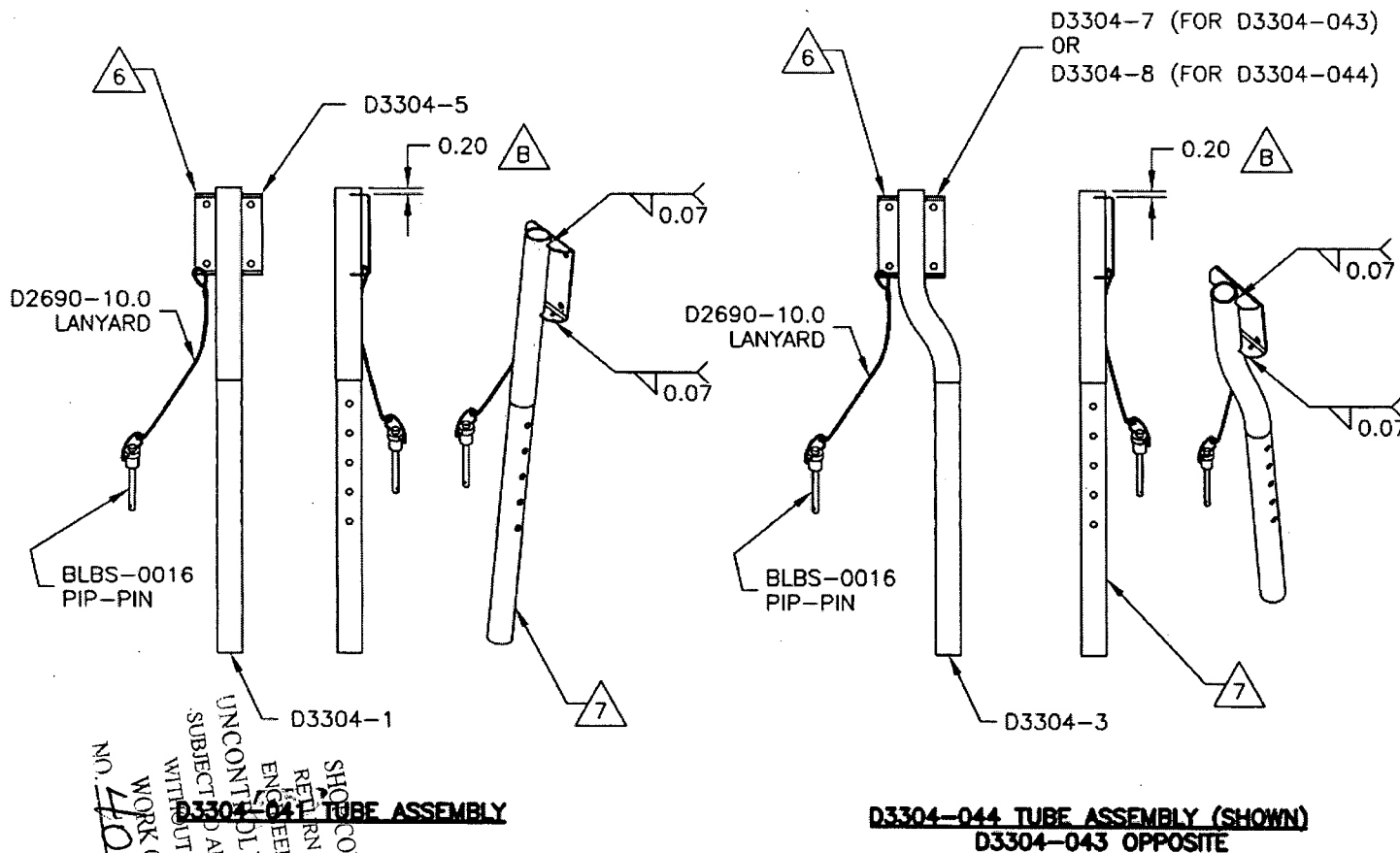
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

DESIGN	RF	DRAWN BY	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED	<i>[Signature]</i>	APPROVED	<i>[Signature]</i>	DRAWING NO. D3304
DATE	05.07.15	TITLE	TUBE ASSEMBLY	REV. B
A	04.08.18	NEW ISSUE		SHEET 1 OF 4
B	05.07.15	UPDATE DIMENSIONS; ADD D3304-7/-8		SCALE 1:6

RELEASED
05.08.11



D3304-041/-043/-044 NOTES:

- 1) FINISH: POWDER COAT GREY SANDTEX (REF. 4.3.5.6) PER DART QSI 005 4.3
- 2) WELD PER DART QSI 004
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) IDENTIFY AS INDICATED USING FINE POINT PERMANENT INK MARKER "TCCA-PDA, DART AEROSPACE LTD, P/N D3304-XXX B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA04-11"
- 7) IF BEING ASSEMBLED WITH D3303-041, ADD THE FOLLOWING USING A FINE POINT PERMANENT INK MARKER: "TCCA-PDA, DART AEROSPACE LTD, P/N D412-724-XXX B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA04-11"

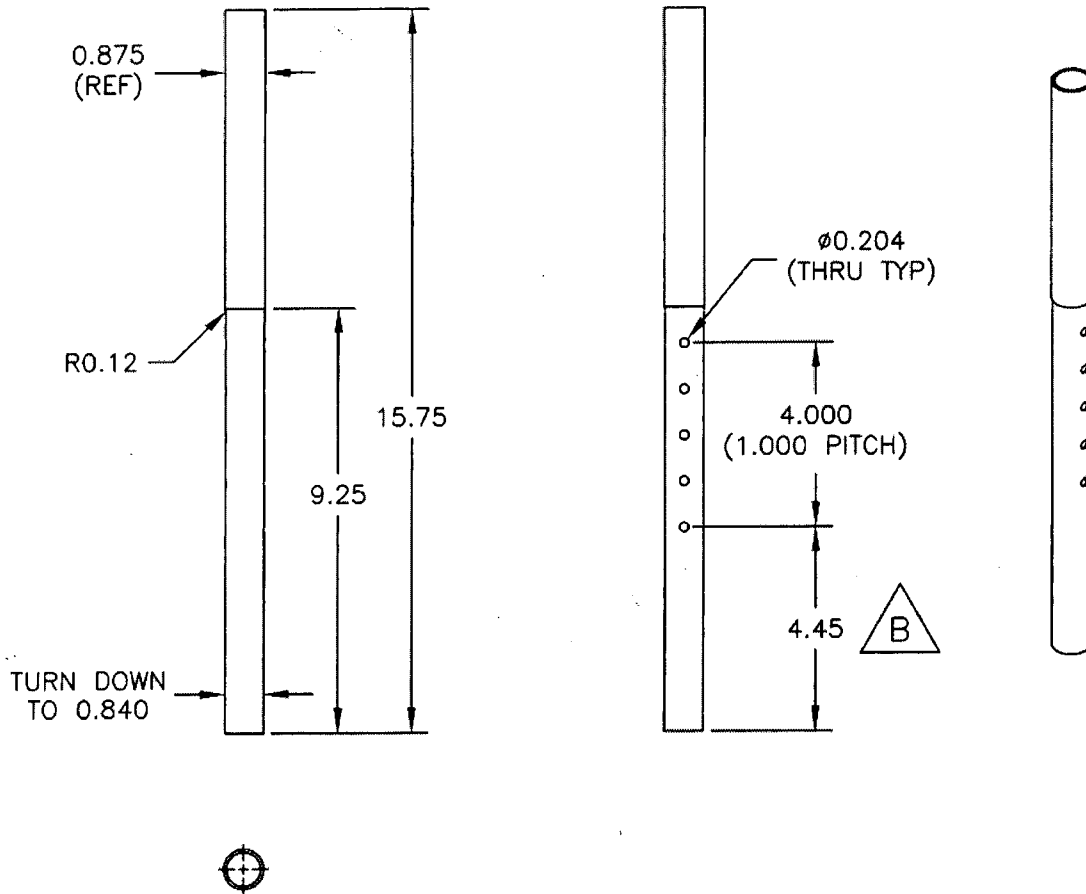
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CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3304	REV. B SHEET 2 OF 4
DATE 05.07.15		TITLE TUBE ASSEMBLY	SCALE 1:4

RELEASED
05.08.11 *[Signature]*



D3304-1 TUBE

D3304-1 NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL TUBE $\phi 0.875 \times 0.065$ WALL
(REF. DART SPEC M304TR0.875W.065) ENSURE SEAMLESS TUBE IS USED
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015

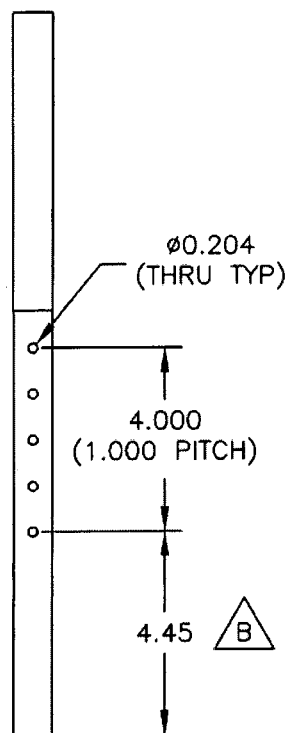
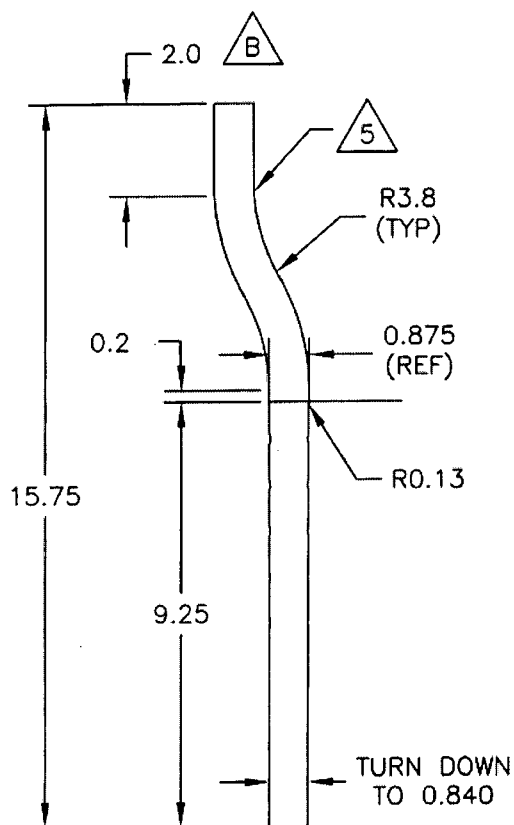
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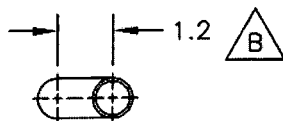
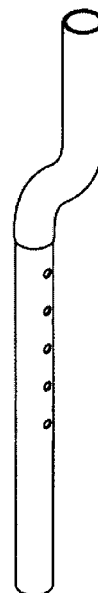
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CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3304	REV. B SHEET 3 OF 4
DATE 05.07.15		TITLE TUBE ASSEMBLY	SCALE 1:4



RELEASED
05-08-11



D3304-3 TUBE

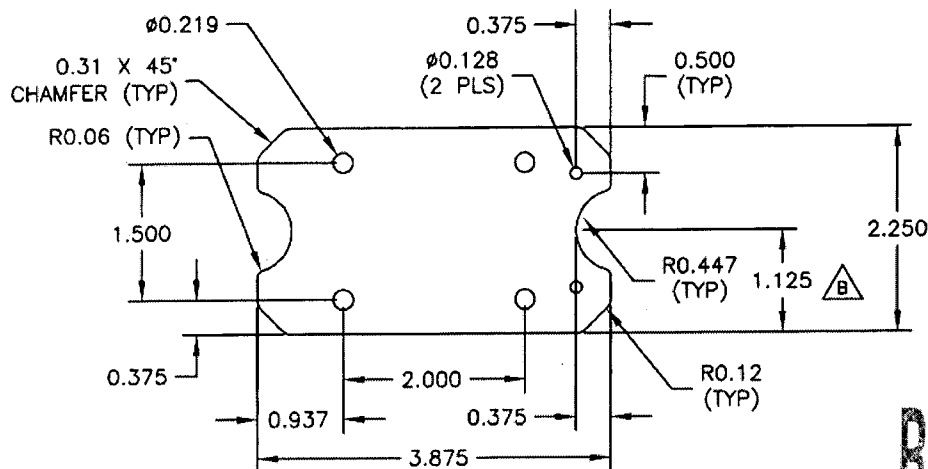
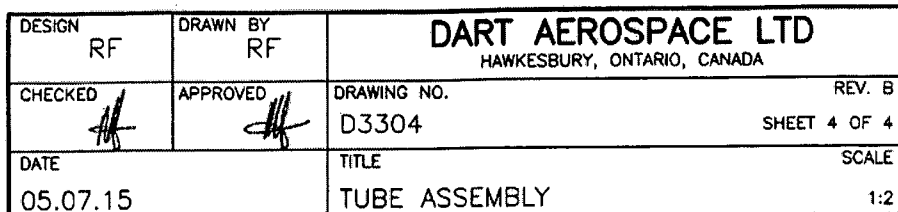
D3304-3 NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL TUBE $\phi 0.875 \times 0.065$ WALL
(REF. DART SPEC M304TR0.875W.065) ENSURE SEAMLESS TUBE IS USED
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) BEND LINES 9.625, 13.375 DIMENSIONS

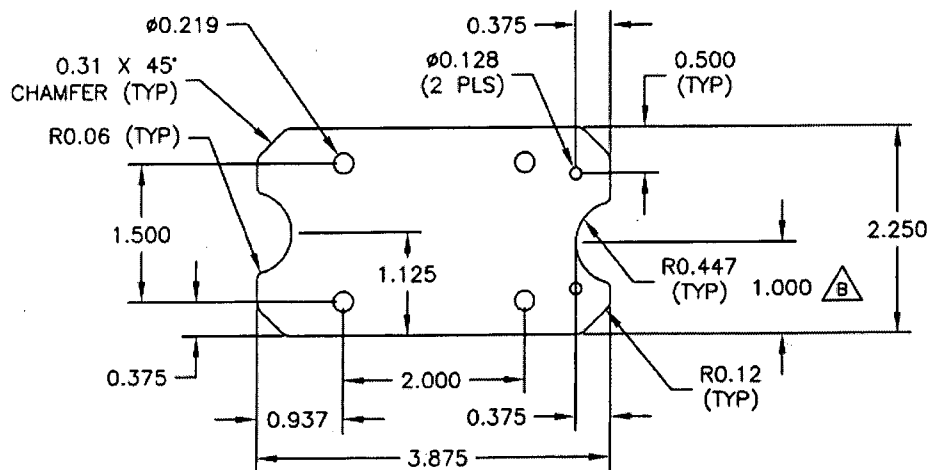
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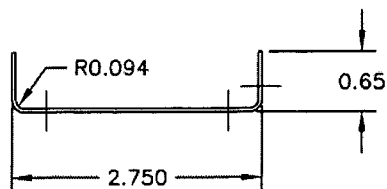
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D3304-5 FLAT PATTERN



D3304-7/-8 FLAT PATTERN



D3304-5/-7 BRACKET
D3304-8 OPPOSITE

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WORK ORDER
NO. 40188

NOTES:

- NOTES:
- 1) MATERIAL: AISI 304/316 SS 0.040 THICK SHEET (REF. DART SPEC M304S20GA)
 - 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 3) ALL DIMENSIONS ARE IN INCHES
 - 4) BREAK ALL SHARP EDGES 0.005 TO 0.015

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